

1266

25

BY-LAW No. 431,

RELATIVE TO THE

BOARD OF HEALTH.

...

PASSED 27th APRIL, 1866.

...

WITH INDEX

AND

Practical Remarks to Citizens,

ON

DOMESTIC SANITARY REGULATIONS

AND

TREATMENT OF CHOLERA.

— — — — —  
CITY OF TORONTO:

LEADER STEAM PRESS PRINC. 53 KING STREET EAST.

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## BY-LAW No. 431.

*To repeal By-law No. 410 relative to the Board of Health, and to extend and make further provision for the health of the City hereafter.*

[PASSED April 27, 1866.]

Whereas it is expedient to repeal the Laws now in force relative to the removal of nuisances, and to make better provision for the removal of nuisances, and the preservation of the health of the city hereafter.

And whereas by the Con. Stat. of Upper Canada, Chap. 54 Sec. 245 the members of every Municipal Corporation of any Township, Town, City and incorporated Village in Upper Canada are constituted Health Officers, but are authorized to delegate by By-law the power thereby conferred upon them, either to a committee of their own members, or to some of their own members and others, or wholly to persons who are not members of such Corporation as the Council thinks fit.

And whereas the Corporation of the City of Toronto, has a Standing Committee of its own members called the "Board of Health," and it is advisable to delegate the said powers in the said recited Statute mentioned to the said members of the said Corporation who shall from time to time constitute the said Committee, called the Board of Health as aforesaid.

Therefore the Council of the Corporation of the City of Toronto enact as follows :

### I.

That from and after the passing hereof, the following By-Laws and parts of By-Laws, viz., sections 68, 82 and 83 of By-Law No. 387, sections 24, 35 and 40 of By-Law No. 418, and sections 9 and 10 of By-Law No. 56, and By-law "No. 410, relative to the Board of Health," shall be, and the same are hereby repealed. That all the powers and authorities conferred upon or vested in the members of the said Corporation of the City of Toronto, by the said recited Statute, or either of them, or by any other Statute of the Parliament of this Province, as the Health Officers of the said City, are hereby conferred upon, vested in, and delegated to the members of the said Corporation of the City of Toronto, who shall from time to time be appointed by resolution of the said Corporation, members of the said Committee called the "Board of Health."

### II.

That the said Committee called the "Board of Health" shall be composed of as many members as there are or may be wards in the said City for Municipal purposes, and that one member of the said Corporation from each ward shall be placed upon the said Committee.

## III.

The Board shall examine into all nuisances, sources of filth, and causes of sickness within the City, or in any vessel within the harbour of the City, that may in its opinion be injurious to the health of the inhabitants, and the same shall destroy, remove or prevent, as the case may require, and shall further enquire respecting articles that are capable of containing or conveying infection or contagion brought or conveyed into the City by or through any vehicle or vessel, or by any means whatsoever.

## IV

That whenever it shall appear necessary to the Board of Health or any of its officers for the preservation of the public health, or for the abatement of any nuisance, or upon the receipt by the Board of a notice signed by two or more inhabitants of the City stating the Condition of any building in the City so filthy as to be a nuisance, or injurious to health, or that upon any premises within the City there is any foul or offensive ditch, gutter, drain, privy, cesspool or ash-pit, kept or constructed so as to be a nuisance or injurious as aforesaid, or that upon any such premises, any accumulation of dung, manure, offal, filth, refuse, stagnant water or other matter, or thing are, or is kept or permitted to remain so as to be a nuisance, or injurious as aforesaid, the said Board of Health, or any of its officers, shall have full power and authority to enter such building or premises for the purpose of examining the same, and, if necessary, to order the removal of any such matter or thing as aforesaid; and if any proprietor or his lawful agent or representative having charge of, or control of, such premises, or the occupants or any other person having any legal or equitable interest therein, after having had twenty-four hours notice from the Board of Health, or any of its officers, to remove or abate such matter or thing as aforesaid, shall neglect or refuse to remove or abate the same, he shall forfeit a sum not exceeding the sum of \$20 for every day during which he knowingly permits or suffers such nuisance or cause of sickness to remain after the time prescribed for the removal thereof; and in case any similar nuisance shall be repeated by any such proprietor, agent or occupant of any premises, such party or parties shall be subject to the penalty hereinbefore mentioned, without any further notice for the removal of such nuisance or nuisances having been given by the Board of Health or any of its Officers; or it shall be in the discretion of the said Board to remove, or cause to be removed or abated, such nuisance or cause of sickness, and to charge the costs and expenses thereof to the persons herein before mentioned, and such costs and expenses shall be recovered in addition to the penalty hereinafter provided.

## V.

Such order shall be made in writing and addressed to the proprietor, agent representative, or the occupant, or the person having any legal or equitable interest in the building or premises, and left at his last or usual place of abode. If vacant premises such order may be given by posting the same in some conspicuous part thereon, the form of notice shall be as in the Appendix "A."

## VI.

The Board of Health may grant permits for or restrain the removal of any nuisance or

infected articles within the City, when it thinks it safe and proper for the public safety so to do.

## OFFENCES AGAINST HEALTH.

### VII.

When, during the prevalence of an epidemic, a Hotel or Boarding-house keeper knows that a person within his house is taken sick of Cholera, Small Pox, or any other disease of a malignant character dangerous to the public health, he shall immediately give notice thereof to the Board of Health or one of its officers; and it shall be the duty of the Medical Health Officer or Officers to visit the same with a view of taking such steps as he may deem necessary to prevent the spread of such disease.

### VIII.

When, during the prevalence of an epidemic, a Physician knows that any person whom he is called to visit is infected with Cholera, Small Pox, or any other disease of a malignant character dangerous to the public health, he shall, if in his opinion the interests of the public health requires it, immediately give notice thereof to the Board or one of its officers, to the end that prompt measures may be instituted to prevent the spread of such disease.

### IX.

Whoever fraudulently adulterates, for the purpose of sale, bread or any other substances intended for food with any substance injurious to health shall, in addition to any other punishment, forfeit and pay a sum not exceeding \$100 and the articles so adulterated shall be forfeited and destroyed under the direction of the Court in which such case shall be tried.

### X.

Whoever adulterates for the purpose of sale any liquor used or intended for drink with any substance which is poisonous or injurious to health, and whoever knowingly sells any such liquor so adulterated shall, in addition to any other punishment, forfeit and pay a sum not exceeding \$100, and the articles so adulterated shall be forfeited, and destroyed under the direction of the Court in which such case shall be tried.

### XI.

Whoever fraudulently adulterates for the purpose of sale any drug or medicine or sells any fraudulently adulterated drug or medicine, knowing the same to be adulterated shall, in addition to any other punishment, forfeit and pay a sum not exceeding \$100, and such adulterated drugs and medicines shall be forfeited and destroyed under the direction of the Court in which such case shall be tried.

### XII.

Whoever wilfully or maliciously defiles, corrupts or makes impure any spring or other source of water or reservoir, or destroys or injures any pipe, conductor of water or other property pertaining to an aqueduct, or aids or assists in the same, shall forfeit and pay a fine not exceeding \$50.

## XIII.

Whoever sells within the city, or exports therefrom, tainted or damaged fish, or flesh meat, unless with the intent that the same shall be used for some other purpose than as food, shall forfeit and pay a fine not exceeding \$5 for every hundred pounds of such fish, or flesh meat, and in the same proportion for any other quantity; and upon a trial or inquiry in such case the burden of proof shall be upon the person accused to show for what purpose such fish or flesh meat was so exported or sold; and the convicting Justice may order such food to be destroyed.

## OFFENSIVE TRADES.

## XIV.

It shall not be lawful for any person from and after the passing of this By-law to build or erect any slaughter house or building, or to use any yard or premises for the purpose of killing therein, without the express permission or license of the Board of Health, and such license or permission shall only be granted by the said Board upon its appearing to them, from the joint certificate of the Medical Health Officer or Officers and Health Inspector that such slaughter house or building is located, made and constructed as hereinafter provided.

## XV.

From and after the passing of this by-law, it shall not be lawful for any person to maintain or continue any slaughter house or building, yard or premises, for the purpose of killing therein, at present erected, built or kept within the limits of the city without the express permission or license of the Board of Health, such license or permission only to be granted by the said Board upon its appearing to them from the joint certificate of the Medical Health Officer or Officers and Health Inspector that such slaughter-house or building is situated at least 100 feet from any public street, and 300 feet from any residence or dwelling, except that of the owner of such slaughter-house, and that it is in no manner injurious to the public health.

## XVI.

No Butcher or other person shall kill or slaughter any beeves, calves, sheep or other animals within the City, unless such person or persons shall have procured license therefor from the Board of Health, on the conditions and as provided for in clauses 14 and 15 of this By-law, and then only upon it appearing to such Officer or Officers and Inspectors that the house, yard, pen or place where such killing shall take place is paved or laid with stone-flag or tile, and the same inlaid with cement and made impervious to water, and the floor in every such case made with a descent towards a gutter which shall pass through the same and leading to a tub or reservoir which shall be placed to receive the blood and offal passing therein, which shall be emptied in conformity with clause 33 of this By-law, at the end of each day when killing has been done on the premises at such place, that no offensive effluvia may arise therefrom.



## XVII.

Every slaughter house or building so used shall be lime-whitewashed inside, at least once in each month between the first day of April and the first day of November in each year, and shall also be supplied with a hydrant, pump or well, having a sufficient supply of water for the purpose of keeping the same clean and free from smell, and shall also at all times have a printed copy of these regulations relating to slaughter houses hung up or exposed in some conspicuous part of such building or premises.

## XVIII.

It shall be the duty of the Health Inspectors in their respective divisions to visit the premises of all butchers and all slaughter houses at least weekly during the months of May, June, July, August, September and October, and twice a month during the remainder of the year, and to report to the Board of Health the result of such visits immediately thereafter.

## XIX.

Whenever a disease of a malignant and fatal character is discovered to exist in any dwelling house within the city, and which house is situated in an unhealthy or a crowded part of the same, or is in a filthy and neglected state, or is inhabited by too many persons, the Board of Health of the city, or a majority of the members thereof, may, in the exercise of a sound discretion, and at the expense of the Board, compel the inhabitants of such dwelling house to remove therefrom, and may place them in sheds or tents, or other good shelter in some more salubrious situation, until measures can be taken under the direction, and at the expense of the Board, for the immediate cleansing, ventilation, purification, and disinfection of such dwelling house.

## VAULTS AND DRAINS.

## XX.

That from and after the passing of this by-law all grounds, yards, vacant lots, or other properties, where stagnant water or other nuisance exists, abutting on any street, or any portion of a street in the city through which a common sewer has heretofore been, or may hereafter be constructed, shall be drained into such common sewer; and all service drains from cellars and dwellings shall be well and sufficiently trapped so as to prevent the escape therefrom of foul air or gases into such cellars or dwellings; and no service drain shall be held to be sufficient for the drainage of the cellars of more than two such houses or dwellings.

## XXI.

The owner, agent, occupant, or other person having the care of any tenement used as a dwelling house, or of any other dwelling with which there is a privy connected and used, shall furnish the same with a sufficient drain under ground, whenever practicable, to carry off the waste water, and the vault of any such privy shall be sunk under ground, and built in the manner hereinafter prescribed.

## XXII.

All vaults and privies shall be made tight, so that the contents thereof cannot escape therefrom, and as remote from the well or water tank as practicable.

## XXIII.

If the Board of Health shall at any time be satisfied that any tenement, used as a dwelling house, or any such other building as is mentioned in the 21st section of this by-law, is not provided with a suitable privy, vault and drains, or either of them as aforesaid, they may give notice in writing to the owner, agent, occupant, or other person having the care thereof, requiring such owner, agent, occupant or other person within such time as they shall appoint, to cause a proper and sufficient privy, vault, and drain, or either of them to be constructed for such tenement or other building, and in case of neglect or refusal, the Board shall have power to cause such privy, vault, or drain to be made for such tenement, or other building, the expense of which shall be paid by such owner, agent, occupant, or other person.

## XXIV.

Whenever any vault, privy, or drain shall become offensive or obstructed, the same shall be cleansed and made free, and the owner, agent, occupant, or other person having charge of the land in which any vault, privy or drain may be situated, the state or condition of which shall be in violation of the provisions of this By-law, shall remove, cleanse, alter, amend or repair the same within such reasonable time after notice in writing to that effect given by the Board of Health or any of its officers. In case of neglect or refusal the Board may cause the same to be removed, altered, amended, or repaired as they may deem expedient, at the expense of the owner, agent, occupant or other person as aforesaid; and in the case of the work being done by the Board or its officers, such owner, occupant or other person shall also be liable to such penalties for non-performance of work, as are presented in this By-law.

## XXV.

It shall not be lawful for any person or persons within the City to remove from the premises of any person within the city, night-soil, without being duly authorized by the Board of Health, and it shall be the duty of the Board of Health to issue a notice to persons desirous of tendering for the removal of all night-soil as aforesaid, provided always that parties so tendering shall, in the opinion of the Board, be in possession of the necessary appurtenances for performing the duties assigned thereto.

## XXVI.

It shall not be lawful for any person within the City to deposit upon any of the streets or upon any land or lot within the said City, any night-soil or other filth, or refuse matter of any kind without the consent and under the directions of the Health Inspector or Inspectors for the said city.

## XXVII.

The centre of Yonge Street, from the Bay to Yorkville shall be considered as the dividing line between the Eastern and Western portions of the city, and the Board is hereby empowered to accept tenders and contract with parties for the removal of night soil from the Eastern and Western portions of the City as above described.

## XXVIII.

It shall be the duty of every party authorized under the 25th section of this By-law within forty-eight hours after notice given to him by the Health Inspector to remove or cause to be removed from the premises of any of the inhabitants within the City, the night-soil accumulated therein, and to deposit the same in some place under the restrictions, and subject to the directions of the Health Inspector as hereinbefore mentioned, provided always that no greater sum shall be charged the person or persons from whose premises such night-soil be removed than named in the tender or tenders accepted by the Board of Health; and should the contractor at any time fail to remove such night soil within 48 hours after having been notified so to do, the Health Inspector or Inspectors shall have power to employ other parties to do such work, and charge the excess of cost, if any, to such contractor; and it shall be the duty of such Health Inspector or Inspectors to furnish the party or parties from whose premises such night-soil has been removed, a certificate of the quantity removed, and the charge according to the rate fixed in and by such tender such for removal; and the Board may at any time order the use of such disinfecting agents as may seem necessary and desirable during the removal of such night-soil, and at the cost of the parties from whose premises such removal is being made.

## XXIX.

Books shall be kept at the several Police Stations or other convenient places, under the charge of the Health Inspectors, in which shall be entered all complaints relating to nuisances, and all applications for opening and cleansing vaults, said last entries to specify the number of loads, if less than the whole contents of the vault to be removed, and the same shall receive attention in the several wards in the order in which they are made, so far as practicable.

## XXX.

No vault shall be opened between the first day of May and the first day of October in each year, unless on inspection caused to be made, the Health Officer or Officers or Inspector or Inspectors shall be satisfied of the necessity of the same for the health or comfort of the inhabitants. In such cases no more of the contents shall be taken away than they or either of them shall deem to be absolutely necessary for present safety and relief, and such precautions shall be used relative to the prevention of any offensive effluvia as they or either of them shall direct at the expense of the owner, agent, occupant, or other person having charge of the premises.

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OFFAL, ASHES, &c.

## XXXI.

That it shall not be lawful for any person or persons within the City to permit or suffer the accumulation of any dung, manure, offal, filth, refuse, stagnant water or other matter or thing upon his or her premises, or on any vacant lot belonging to him or her; or to place on any public lanes or by-ways, in front or in rear of their buildings or premises, any manure or other refuse vegetable or animal matter, or any other dirt or filth which in the opinion of the Health Inspector or Inspectors shall prove to be a nuisance.

## XXXII.

All house offal, whether consisting of animal or vegetable substance, shall be placed in suitable vessels; and no ashes or other refuse matter shall be mingled therewith, and the same shall be kept in some convenient place to be taken away by the City Scavengers, which shall be done as often as the Board of Health shall require and direct.

## XXXIII.

No person shall remove or carry in or through any of the streets, squares, courts, lanes, avenues, places or alleys of the City, any house dirt or house offal, animal or vegetable, or refuse substances from any of the dwelling houses or other places in the city, unless such person so removing or carrying the same, and the mode in which the same shall be removed and carried shall have been expressly authorised by the Board of Health, upon such terms and conditions as they shall deem the health and interest of the City require, and the same shall only be removed between the hours of twelve o'clock at night and two hours after sunrise during the months of May, June, July, August and September—horse stable manure excepted. But all the ashes and cinders made from steam engines, or steam boilers, forges or furnaces used for mechanical purposes, or from dwellings, shall be removed at the expense of the parties occupying such buildings, or the owners thereof, at any time but in such manner as the respective Health Inspectors shall direct.

## XXXIV.

No person without the license or permission of the Board of Health shall throw into or leave in, or upon any street, court, square, lane, alley, wharf, public square, public enclosure, vacant lot, or any pond or body of water within the limits of the city, any dead animal, dirt, saw dust, soot, ashes, cinders, shavings, hair, shreds, manure, oysters, clam or lobster shells, waste water or filth of any kind, or any refuse, animal or vegetable matter whatsoever. Nor shall any person throw into or leave in the Bay any dead animal or other foul or offensive matter, except as hereinafter provided.

## XXXV.

If any of the substances mentioned in the preceding section shall be thrown or carried from any house, warehouse, shop, cellar, yard or other place, or left in any of the places specified in the preceding section, the owner and occupant of such house, warehouse, shop, cellar, yard, or other place as aforesaid, and the person who actually threw, carried or left the same, or who caused the same to be thrown, carried or left,

shall severally be held liable for such violation of this By-law; and all such substances shall be removed from the place where they have been so thrown or left as aforesaid, by such owner or occupant or other person within four hours after personal notice to that effect given by any of the Health Inspectors, or such removal may be made under the direction of the said Inspectors, and the expense thereof borne by such owner or occupant.

## XXXVI.

No person shall bring into the City, by land or water, or land on any wharf or other place, any decayed fruit, potatoes, or other vegetable product, or any tainted or damaged meat or fish, without a permit therefor from the Board of Health or the Health Inspector, and in such a manner as they shall direct.

## XXXVII.

No cows or other cattle, swine or goats, shall be kept in the City unless proper drains are connected with the sheds, stables or pens, as shall thoroughly carry off all liquid filth issuing therefrom, so that it shall not in any way constitute a nuisance, or a danger to the public health; but if no drains are constructed on streets opposite the lot or premises on which such stables or sheds are situated, then the owner or occupant of such stable or shed shall provide a cistern or reservoir so constructed as to receive all liquid filth issuing therefrom, and the same shall be removed and disposed of in accordance with clause 33 of this By-law.

## XXXVIII.

## MEDICAL HEALTH OFFICER OR OFFICERS AND HIS OR THEIR DUTIES.

There may be elected by the Council, on the recommendation of the Board of Health, when deemed requisite by the Council for the preservation of the public health, a member or members of the Medical profession, to be called the "Medical Health Officer or Officers," who shall hold his or their office during the pleasure of the Council, and until a successor or successors are elected or he or they be removed. He or they shall devote all his or their time to the duties of his or their office, as hereinafter detailed, and for such services shall receive such compensation as the said Council may from time to time determine, and before entering on the duties of his or their office he or they shall make the following declaration before the Mayor of the City for the time being, viz:

I, \_\_\_\_\_, hereby declare that I will, to the best of my skill and judgment, duly and faithfully execute, fulfil and discharge all the duties appertaining to my office of Medical Health Officer, as declared in this By-law, and that I will not, directly or indirectly, for myself or others, in trust for me or on my account, have any interest or concern in any purchase, contract or agreement to be made in pursuance of this By-law,

## XXXIX.

There shall be provided by the City Council a suitable office for the Medical Health Officer or Officers, free of expense to him or them, at which place he or they shall

attend at such times as the Board of Health may direct; and in case of his or their absence, he or they shall appoint some competent person or persons to discharge his or their duties at his or their office. He or they shall examine all causes of disease within the city, and inquire into all sources of danger to the public health, and shall give his or their professional services and advice therein, and at all times when required by the said Board. It shall be the duty of such Medical Health Officer or Officers, upon being informed by any Health Inspector, Constable or other person, that any destitute person or family is in sickness, at once to proceed and visit such person or family, and upon such visitation he or they are hereby authorised to take such measures for their *immediate* relief as to him or them may seem correct, either by ordering them to be removed to the General Hospital or other place provided for that purpose, or directing that they be supplied with the requisite and necessary medicine for their relief at the expense of the City; and a regular and correct account of each case, and of any such expenditure, shall be kept by him or them, and a monthly return of the same shall be made to the Board of Health at its first meeting thereafter.

## XL.

He or they shall examine all sources of filth and causes of sickness which may be on board any vessel at any wharf within the harbor of Toronto, or which may have been landed from any vessel on any wharf or other place, when notified of the same, and under the direction of the Board of Health shall cause the same to be removed or destroyed; and it shall be the further duty of such Medical Officer or Officers, when requested so to do by the Mayor, any member of the Board of Health or Health Inspectors, any member of the City Council, or any Medical Practitioner of the city, or when he or they thinks it expedient so to do, to examine or cause to be examined by analyzation the water of any well within the City, and if upon such analysis any such water is found unfit for use, and is so pronounced by such Medical Health Officer or Officers, it shall be lawful for any Health Inspector or Constable to forbid the use of any water from any such well, and to take such steps as may be necessary to purify the same.

## XLI.

He or they shall attend upon all cases of disease and perform all the professional services that may be required of him or them in the several Police stations within the City, and shall examine all candidates for appointment in the Police force, when requested by the Board of Commissioners of Police, and shall examine into the condition of all Officers absent from duty from disability; but this clause is not to interfere with the existing rights of any Medical gentleman now employed by the Police Commissioners; also all cases of accidental injury whereby the City may become liable.

## XLII.

He or they shall keep a record of all cases of disease attended or visited by him or them under this By-law, of all the wells or water supplies examined by him or them; he or they shall also keep a meteorological record and arecord of the ozonometrical

condition of the atmosphere in the vicinity of his or their office and of his or their residence, and shall keep a full and complete register of the births and deaths within the city.

#### XLIII.

He or they shall visit and examine all places of interment in the City, and shall report on their condition to the Board of Health once a month during the months from April to October, inclusive, and shall with the concurrence of the Board of Health, give such directions with regard to the modes of burial and the use of disinfectants and antiseptics as the public health may demand. He or they shall keep a record of all the doings of his or their office, and shall make a regular return thereof to the City Council every three months.

#### XLIV.

On and after the first of May next, it shall be the duty of each and every Medical Practitioner and Midwife in the city, to report at least weekly to the Medical Health Officer or Officers all births that may have taken place under their care or attendance and should no such Medical Practitioner or midwife be present at any birth, then it shall be the duty of the head, or person in charge, of such house in which a birth may occur, immediately to report the case to the Medical Health Officer or Officers.

#### XLV.

### HEALTH INSPECTORS AND THEIR DUTIES.

There shall be elected by the Council, on the recommendation of the Board of Health, two officers to be called Health Inspectors, one for the Eastern Division of the City and the other for the western Division, who shall hold office during the pleasure of the Council, and until successors are elected and qualified, or they are removed. The said Health Inspectors shall, before entering upon the duties of their office, make the following declaration before the Mayor of the City for the time being, viz.:—"I ———, hereby declare that I will, to the best of my skill and judgment, duly and faithfully perform all the duties appertaining to my office of Health Inspector, as declared in this By-Law, and that I will not directly or indirectly, for myself or others, in trust for me or on my account, have any interest or concern in any purchase, contract, or agreement, to be made in pursuance of this By-Law."

#### XLVI.

The said Health Inspectors shall attend at their office a portion of each day, as the Board of Health may direct. They shall each keep a record of all their proceedings in books in which shall be entered, under appropriate heads, any expenditure ordered in their department, with the names of all persons who have furnished materials, and of all workmen and the time worked, and the amount to be paid to each individual, and they shall make a report thereof to the Board whenever so required to do, and at the end of each year a schedule of the property under their charge belonging to the city, and the value thereof.

## XLVII.

It shall be the duty of the Health Inspectors to keep a vigilant supervision over all the lanes, by-ways, vacant lots or premises within the City, upon which any accumulation of dung, manure, offal, filth, refuse, stagnant water, or other matter or thing may be found, and at once either when required by any person or otherwise, to examine the same and to notify the parties who own or occupy such premises to remove the same. The report of such examination and the form of notification to be as in Appendix "A," and if the same be not removed within twenty-four hours after notice thereof, as aforesaid, the Inspector shall lodge information with the Police Magistrate for the City, or the Alderman presiding as such for the time being, to the end that proceedings may be immediately taken against the parties so offending, in accordance with this By-Law. And it shall be in the discretion of the said Inspectors to cause the same to be removed, and the cost thereof shall be paid by and received from the said parties. It shall also be the duty of the said Inspectors to keep a vigilant look out over the Sewers and other public works in the City, and in case the same shall be in such a condition as to be a nuisance, the said Inspectors shall immediately report the same to the Board of Health or its Chairman who shall forthwith direct necessary steps to have the same remedied, abated, or removed.

## XLVIII.

They shall make all necessary arrangements for removing all decaying animal or vegetable matter from the streets, depositing of manure and removing house dirt and offal. And it shall be the general duty of the Health Inspectors to see that the provisions of the several clauses of this By-Law, except such as devolve certain duties on other officers, are strictly enforced—and generally to obey and carry out the intentions and directions of the Board of Health.

## XLIX.

When the Health Inspectors shall, under instructions from the Board of Health, sell any articles or materials belonging to the City, or shall do or cause to be done, any work for any individual from which money shall become due to the City, the said Inspectors shall enter in books, to be kept for that purpose, all such sales and work done with the price thereof, and shall forthwith make out bills for the same and deliver them to the Chamberlain of the City for collection, and the said Chamberlain shall forthwith demand payment of the said bills; and in case any bills or dues under this By-Law shall remain unpaid at the expiration of one month after demand for payment, as aforesaid, the said Chamberlain shall deliver the same to the City Solicitor for legal proceedings; but if at any time the Mayor shall be satisfied that the interests of the City require it, he may cause legal proceedings to be had at any time.

## L.

The pay rolls of the workmen, servants or laborers employed under the direction of the Health Inspectors, shall be made up and certified by them, and upon being duly passed by the Board of Health, and subject to clause 20 of By-law No. 378, shall be paid by the Chamberlain.



## LI.

There shall be provided for the public purposes of the city, Scavenger Carts, not less than seven in number. Each cart shall be supplied with one horse and the necessary appurtenances, and be controlled by one man. And such horses, carts and men shall be under the order and direction of the Board of Health or its Officers hereinbefore named, and be employed by the Board when and where required, in the removal of House offal, the taking and carrying away of dead animals, and in the collecting and removing all decayed animal or vegetable matter, dung, manure, filth, refuse, or other matter or thing whatever from the streets, lanes and other public places within the limits of the City; and the said Board of Health shall so arrange the Scavenger beats, that all house offal shall be removed from the different premises in the city not less than once in each week.

## LII.

It shall be the duty of all officers, servants, workmen and agents of the Corporation, to give all possible aid and assistance in their power to the several Health Officers appointed under this By-Law.

## LIII.

Whenever it shall be considered necessary the said Board of Health are hereby authorized to accept the services of persons in the several wards of the city who may be willing to volunteer for the purpose of maintaining and preserving the health, and such persons, for the time being, upon their names being duly notified by proclamation or other public notice shall be invested with and exercise all the powers and privileges exercised by the said Health Inspectors under this By-Law.

## LIV.

Any person guilty of any infraction of any of the provisions of this By-Law in relation to which a penalty is not already prescribed, shall, on conviction before the Police Magistrate, or any one or more of the Aldermen of the said City, forfeit and pay at the discretion of the Police Magistrate, Alderman or Aldermen convicting, a sum of money not exceeding Thirty Dollars, nor less than One Dollar, for each offence, and in case such conviction takes place upon the information of any other person than the Health Inspectors or Health Officers, one-half of such penalty shall go and be paid to the person so giving the information as aforesaid, and in default of payment of any fine imposed for the infraction of any of the provisions of this By-Law, together with the cost of prosecution, it shall and may be lawful for the Police Magistrate, Alderman or Aldermen convicting, as aforesaid, to issue his or their warrant to levy the amount of fine and costs by distress and sale of the offender's goods and chattels; and in case no sufficient distress to satisfy the amount of fine and costs shall be found, it shall

and may be lawful for the Police Magistrate, Alderman or Aldermen, as aforesaid, to commit the offender or offenders to the Common Gaol of the City of Toronto, for any period not exceeding one calendar month.

I certify that I have examined this Bill,  
and that it is correct,

COUNCIL CHAMBER,  
Toronto, April 27th, 1866.

JOHN CARR,  
*City Clerk.*

(L. S.)

F. H. MEDCALF,  
*Mayor.*

as aforesaid, to  
Toronto, for any

JOHN CARR,  
City Clerk.

## (APPENDIX A.)

No. ....

## HEALTH INSPECTOR'S REPORT.

No. .... Queen Street.

House. .... Story. .... Frame. .... Brick.

Owner. ....

In ..... condition.

Tenants. { Males.  
              { Females.

No. of  
Family.

## State of Premises.

Privy..... Yard..... Cellar..... Stable.....  
Lane..... Well.....

## Proximity of above.

From Privy to Well.  
" " Dwelling.  
" Pig, Cow or Horse Stable to Dwelling.  
" " " " " Well.

Feet.

## General Remarks.

Locality, high or low. ....  
Water, good or bad .....  
State of Sewerage. ....

Toronto. ...., 1866.

This is to certify and declare that I have examined the premises above-mentioned, in accordance with the provisions of By-law No. 431, and that the state thereof is as I have described.

....., Inspector.

No. ...., 1866.

....., Owner.

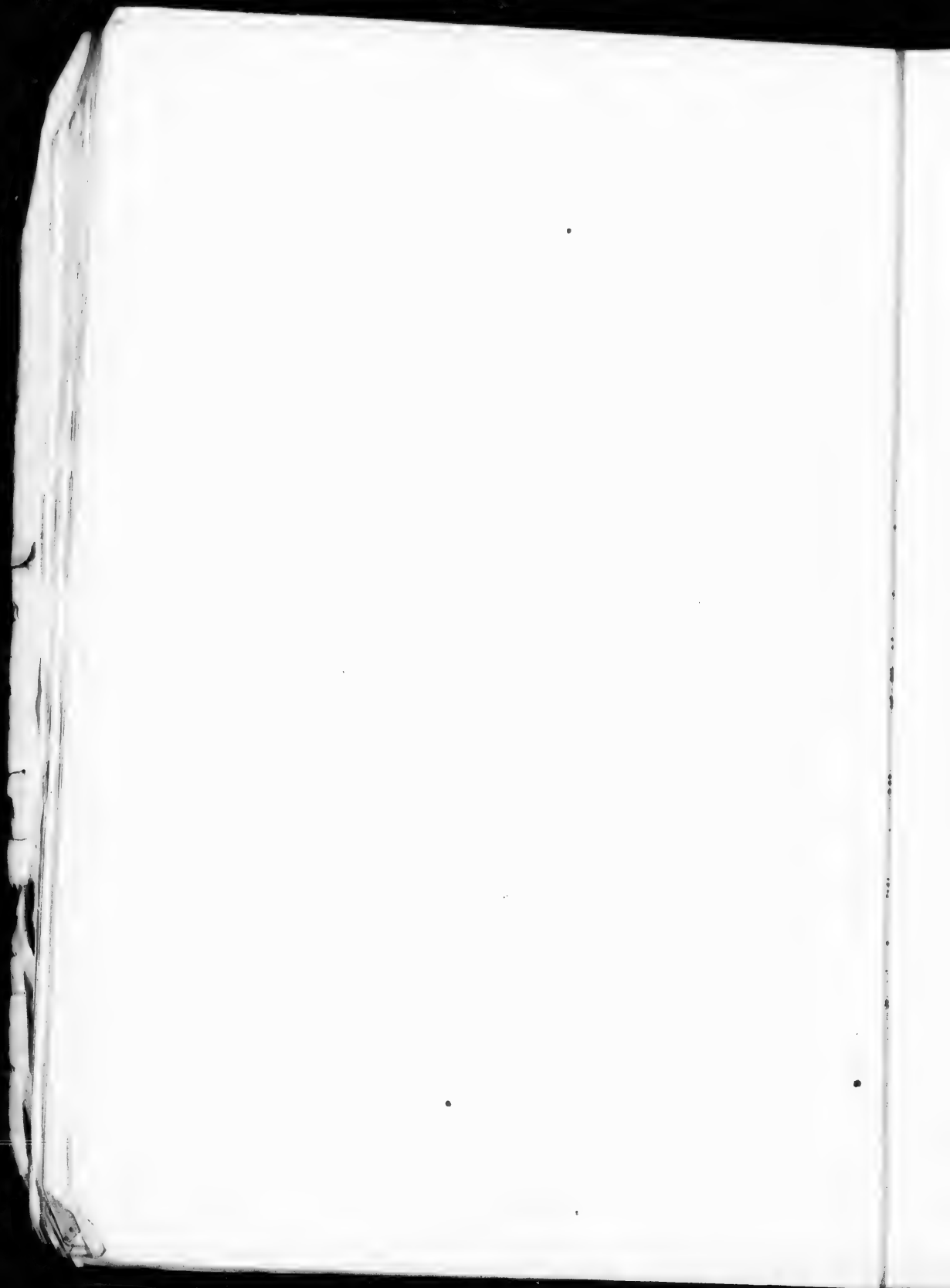
Notified to remove filth from ..... in ..... hours.

Time, 10 o'clock, A.M.

No. ...., 1866.

SIR,—You are hereby notified, in compliance with the provisions of By-law No. 431, to cause to be removed from the ..... in the premises ..... by you, on ..... all filth, &c., within ..... hours from this date, or, in default, I will cause the same to be done, and the cost and expenses thereof charged to you, in addition to any penalty imposed by the said By-law.

....., Inspector.



## TO THE CITIZENS OF TORONTO. \*

Disbelieving in the popular fallacy, that "It is best to say as little as possible about the Cholera until it comes," the Board of Health has endeavored, in the following remarks and selections, so to familiarize the minds of the citizens to the prevailing causes, and means for prevention and cure of that dread disease, that they may the better be prepared should this City unhappily be visited by it, during this season. With proper precautions instituted, there is every reason to believe that the Cholera, at least in this section of the Continent, may be rendered less fatal in its results than are some other epidemics or prevailing diseases.

The almost universal testimony of Medical men, in the civilized world, is, that from the uncleanness of person, dwelling or premises, or locality, combined with improper food and intemperate or irregular habits, arises the chief danger from Cholera or other epidemics; hence the importance of paying strict attention to sanitary precautions.

Owing to recent improvement, in sanitary condition, the mortality rate of London has decreased from 1 in 20 to 1 in 45; Liverpool 1 in 28 to 1 in 41; Salisbury 1 in 37 to 1 in 50; Philadelphia 1 in 39 to 1 in 50; and other cities in similar proportion.

A remarkable fact is told of the city of Worcester, England. "Having been twice scourged by Cholera, the city undertook to avert the later epidemics by means of effectual cleansing and efficient sanitary regulations. The result was, that while the pestilence swept through the neighbouring cities and villages, the populous city of Worcester escaped, and the Destroyer of uncleanly cities made a *passover* with the city of Worcester, for on every lintle and doorstep was written 'cleanliness, cleanliness.' Not a house was entered, and the town was saved in the midst of the most frightful desolation."

Mr. Edwin Chadwick, an English Sanitary Commissioner, in an address to the people of Salisbury, says:—"The chief means of warding off epidemics, to be labored for everywhere, are these: Clean air in the streets; air clean from foul emanations beneath the surface, and cesspools (which last you have by your drainage works attained); air clean from foul emanations from unclean streets, and yards, and stables; air clean from overcrowding in living and sleeping rooms, in schools and workshops; clean skins, clean body linen, pure water distributed into every house, and proper channels for the constant removal of all foul and waste water from within the house. With these of course to be combined a sufficiency of nutritious food, and proper clothing. But with the skin kept clean the people may go forth regenerated, and armed as against an extraordinary pestilence, as well as against that which we have always with us."

\* Since the passing of the accompanying Health By-law, and the preparation of these remarks and selections, the Provincial Central Board of Health has issued certain regulations under the authority, and having the force of Legislative enactment. While such regulations remain in force they suspend so much of the City By-laws as may be affected by any of such regulations. The penalty under the statute for violation of these regulations shall not exceed \$20.

In the preparation of the accompanying By-law, the Board of Health has had the advice of a number of gentlemen of the Medical Faculty; and although in passing through the Council it has been curtailed in some of its useful and necessary provisions, yet, it is confidently believed, if faithfully carried out by the aid of the citizens generally, it will be to a great extent effective in preventing, or in arresting, the spread of dangerous epidemics in the city.

The Board would especially call attention to the various provisions of the By-law, especially those relating to—

1. Thorough cleansing and ventilating of cellars, and premises generally.
2. Service drains, and efficiently trapping all such where entering dwellings.\*
3. Cleansing of yards, and drainage of stables, cow sheds, &c.
4. The sale or use of tainted or decaying animal or vegetable foods.
5. The regulation of slaughter-houses.
6. Placing house offal for removal by scavengers, so soon as such a system may be organized.
7. The keeping of Cattle, Swine, &c.

The Board of Health would also caution parties against, 1st. The use of impure water, or water into which leakage from impure sources enter, for domestic purposes; as all previous experience has proved this to have been one of the most frightful sources for the spread of Cholera. 2nd. The indulging in irregular and intemperate habits, which always—more or less—exhaust nervous energy, and invite attacks of disease. 3rd. Leaving crowded and overheated rooms or public buildings, and passing out into the night air, without sufficient covering to protect the person from sudden cold or chill. 4th. The use of Patent Medicines, except such as have been recommended by reliable medical authority. 5th. The indulgence of fear or undue anxiety; but rather that we quietly endeavor to do our duty to ourselves and our fellow-man, exercising every Christian virtue, maintaining a firm trust in God, and intelligently using the preventive or curative means placed within our reach.

#### DISINFECTANTS.

The judicious use of disinfectants in times of epidemics is strongly urged and enforced by all Medical men and Health Officers. The following memoranda on processes of disinfection have been issued by the Privy Council of Great Britain:—

"1. For purposes of artificial disinfection, the agents which most commonly prove useful are—chloride of lime, quicklime, and Condy's manganic compounds. Metallic salts—especially perchloride of iron, sulphate of iron, and chloride of zinc, are, under some circumstances, applicable. In certain cases chlorine gas or sulphurous acid gas may advantageously be used; and, in certain other cases, powdered charcoal or fresh earth.

\* An efficient trap will be furnished in a few days, which may be put in by any person, in one or two hours, and at an expense of not over \$2 for the trap.

"2. If perchloride of iron or chloride of zinc be used, the common concentrated solution may be diluted with eight or ten times its bulk of water. Sulphate of iron or chloride of lime may be used in the proportion of a pound to a gallon of water, taking care that the water completely dissolves the sulphate of iron, or has the chloride of lime thoroughly mixed with it. Condry's stronger fluid (red) may be diluted with fifty times its bulk of water; his weaker fluid (green) with thirty times its bulk of water. Where the matters requiring to be disinfected are matters having an offensive smell, the disinfectant should be used until this smell has entirely ceased.

"3. In the ordinary emptying of privies or cesspools, use may be made of perchloride of iron or chloride of zinc, or of sulphate of iron. But where disease is present, it is best to use chloride of lime or Condry's fluid. Where it is desirable to disinfect, before throwing away, the evacuations from the bowels of persons suffering from certain diseases, the disinfectant should be put in the night stool or bed pan when about to be used by the patient.

"4. Heaps of manure or of other filth, if it be impossible or inexpedient to remove them, should be covered to the depth of two or three inches with a layer of freshly burnt vegetable charcoal in powder. Freshly burnt lime may be used the same way but is less effectual than charcoal. If neither charcoal nor lime be at hand the filth should be covered with a layer some inches thick of clean earth.

"5. Earth, near dwellings if it has become offensive or foul by the soakage of decayed animal or vegetable matter, should be treated on the same plan.

"6. Drains and ditches are best treated with chloride of lime, or with Condry's fluid, or with perchloride of iron. A pound of good chloride of lime will generally well suffice to disinfect 1,000 gallons of running sewage; but of course the quantity of disinfectant required will depend upon the amount of filth in the fluid to be disinfected.

"7. Linen and washing apparel requiring to be disinfected should without delay be set to soak in water containing per gallon about an ounce either of chloride of lime or of Condry's red fluid. The latter, as not being corrosive, is preferable. Or the articles in question may be plunged at once into boiling water, and afterwards when at wash be actually boiled in the washing water.

"8. Woollens, bedding, or clothing which cannot be washed, may be disinfected by exposure for two or more hours in chambers constructed for the purpose to a temperature of 210 to 250 degrees Fahrenheit.

"9. For the disinfection of interiors of houses the ceilings and walls should be washed with quicklime water. The woodwork should be well cleansed with soap and water, and subsequently washed with a solution of chloride of lime, about two ounces to the gallon.

"10. A room, no longer occupied, may be disinfected by sulphurous acid gas or chlorine gas—the first—by burning in the room an ounce or two of flowers of sulphur in a pipkin; the second, by setting in the room a dish containing a quarter of a pound of finely-powdered black oxyd of manganese, over which is poured half-a-pint of muriatic acid, previously mixed with a quarter of a pint of water. In either case the

doors, chimney, and windows of the room must be kept carefully closed during the process, which lasts for several hours."

The Canada Chemical Company, of Toronto, supplies a disinfecting fluid which may be obtained at the various druggists, and is said to be identical with Condy's fluid, and at one-third the cost.

Dr. Tempest, of this city, in a recent number of the Journal of the Board of Arts and Manufactures, says:—

"For use in the vessels of a room the Disinfecting Solution of the Canada Chemical Company is very good. It is a solution of chlorine, neutralized with suitable gases, and forms a safe disinfectant.

"Where rooms or houses are uninhabited, or where the effluvia is so strong that powerful reagents are required, chlorine gas is most efficacious, and may be thus prepared:—

"Mix three ounces of black oxide of manganese with eight ounces of common salt, place in a strong dish or jar, and pour on it four ounces by weight of sulphuric acid, diluted with four fluid ounces of water. The acid and water had better be added to each other by the druggist. It must be borne in mind that chlorine is irrespirable and attacks metals, therefore this formula is not to be used in a house that is occupied. The matter left after the evolution of chlorine has ceased is still possessed of disinfecting properties.

.....  
 "For pouring down the pipes of sinks, water-closets, &c., tar water is a very useful deodorizer. A few pounds of coal tar can be kept in a bucket, hot water poured on and stirred with a stick will take up some of its properties, and a little of it can be used occasionally as indicated. The same portion of tar will do for several quantities of water.

"The use of chloride of lime is pretty well known. It may be placed in saucers or dishes in cellars, and in holes and corners of doubtful cleanliness, and especially in rat holes.

"At this season, cellars and root houses where vegetables have been stored, should be looked to, all decomposing matters removed, drains examined, and preparation made for a thorough spring house-cleaning and whitewashing. The latter is best done with quick lime. People should bear in mind that pure air and water are nature's great disinfectants and deodorizers. In times of epidemic disease, dry scrubbing is better for cleaning floors than the use of much water, and bed-rooms would be more easily kept clean and the air in them sweet, if the carpets were not fastened down, but were left so as to be readily and frequently taken up and exposed to the air."

Another writer on the subject of *Cellars*, says:—

"A bad, dirty cellar, appears to combine the idea of all that is repulsive—damp, offensive, musty, putrid air—rotten apples, rotten cabbages, rotten potatoes, rotten



boards—the effluvia creeping through every open window and open door, and through the cracks of every closed window and every closed door, into all parts of the house—into the kitchen, into the parlour and dining room, into the sleeping apartments—and laying the foundation of sickness and fevers.”

Another authority advises that—

“Gypsum and lime, either slacked or caustic, should be sprinkled over the bottoms of cellars in the spring. This will tend to purify the atmosphere and prevent many deleterious effects resulting from the presence of *miasma*. After a few days it should be removed, and a fresh supply substituted in its place. Wherever there is a close atmosphere of any putrescent matter in a state of fermentation, gypsum should be liberally used. When gypsum is not to be obtained, lime may be used.”

#### PREVENTION AND TREATMENT OF CHOLERA.

A few selections are here added, for ready reference, on the Prevention and Treatment of Cholera, which, coming from reliable authorities, may be found serviceable where a physician is not at hand, or until his arrival.

The first is from an address just issued by the New York Board of Health, to which they beg the public to give their earnest attention:—

“Cholera is generally a preventable disease, and in its early stages can be arrested if the habits be good. Study, therefore, temperance in eating and drinking. Do not believe that alcoholic stimulants are useful in guarding you against an attack. Let the food be nutritious, and keep the digestive organs in a healthful condition. Use no stale or uncooked vegetables. Let your meat be fresh, and your vegetables well cooked, and all fruits be fresh and ripe.

“Cleanliness of the body is of the first consideration. Keep the skin in a healthy state by bathing the whole body, with a free use of soap. Cold bathing is best used in the morning—never just before going to bed. Dry frictions, or the warm bath, may be safely used just before going to bed.

“Cleanliness in your homes is of equal importance. Let your apartments be dry—never damp. Suffer no decayed vegetables or stagnant water to remain in your cellars or yards. Any disagreeable smell from privies, cesspools or sinks, is a proof of their unhealthiness. Remove them by necessary repairs, lime, chloride of lime, or white-washing. Ventilate well your houses and apartments. Expose your bedding to the air and sun. Avoid excessive fatigue. Keep regular hours in eating and sleeping. Wear flannel near to the skin. A good plan is, if the bowels are at all disordered, to wear a broad band of flannel (a flannel belly band) around the body, reaching from the hips to the ribs. Maintain the natural temperature of the body by sufficient clothing, especially keep the feet warm. Never when heated sit on the grass or stone seats, or sleep under an open window. If exposed to wet, change your boots or clothes as soon as possible.

“Take no purgative medicines, except by direction of a physician.

“Cholera is almost invariably preceded by a painless diarrhoea, and this is in all cases to be promptly treated.

"When diarrhœa is present, go to bed and maintain a position on the back, use abundance of blankets, and send for a physician.

"A physician can always be obtained by applying to the nearest police station.

"Stay in bed until you are well. Do not consider yourself well until you have had a natural movement from the bowels. Abstain from all drinks. Apply mustard plasters to the bowels.

"In the absence of a physician an adult can take ten drops of laudanum and ten drops of spirits of camphor. A child of ten years may take five drops of laudanum and five of camphor. A child of five years may take three drops of laudanum and three of spirits of camphor; and these doses may be repeated every twenty minutes so long as diarrhœa, or pain, or vomiting, continues. This will save time, but in all cases send for a physician.

"Do not get up to pass the evacuations, but use the bed-pan, or other conveniences.

"Never chill the surface of the body by getting out of bed.

"Remove immediately all the evacuations from your rooms; scald all the utensils used, or disinfect them with chloride of lime; scald also your soiled clothing."

Dr. Velpeau, a most eminent physician, at a recent meeting of the Academy of Sciences of Paris, said:—

"I am obliged to avow that it is not always in our power to point out an efficacious remedy. The Cholera is no doubt caused by the introduction of a poison into the organism. If the poisonous element is in small quantity, and the organism strong, it makes no ravages; if the contrary be the case, the danger is real. Also when the patient absorbs what is administered to him, his cure is probable. But sometimes the stomach refuses to absorb anything, and in this case recourse should be had to external means, which are often insufficient. In a word, the malady almost always commences by characteristic symptoms, such as premonitory diarrhœa. The preventive treatment is easy, and it is for each person to guard himself. Excess of every kind should be carefully avoided, and the rules of salubrity attentively observed. The means of arresting the malady at its outset are very simple. My advice is this—pour from three to four drops of laudanum on a lump of sugar, and swallow it. Repeat in two hours afterward, and so on, until the colic and vomiting pass away. Take also very small injections of starch, poppy flowers, with six, seven, eight or ten drops of laudanum. This treatment will almost always suffice to stop the diarrhœa, and will be a guaranty against the malady."

The Provincial Central Board of Health at their recent meeting recommended the following remedy to be used in diarrhœa preceeding cholera, until the services of a physician can be secured, namely, oil of aniseed, oil of cajeput, and oil of juniper—of each, half a drachm; sulphuric æther, half an ounce; strong sulphuric acid, 7 drops; spirit of wine, 23 drops; tincture of cinnamon, 2 ounces; mix the dose, and take 10 drops in a teaspoonful of water every quarter of an hour.

The Board cannot close these selections better than by giving the very sensible and practical remarks of Dr. Corson, before the Brampton Board of Health, on the

*Prevention and Domestic Treatment of Cholera*, "and also extracts from a very comprehensive paper by Dr. Hamlin, an American Missionary of 30 or 40 years standing at Constantinople.

#### DR. CORSON'S REMARKS.

Dr. Corson said that there were occasions of public danger when the natural delicacy of the educated Physician to popular display must give way to the duties of a good citizen. Publicly or privately he must try to save human life. He (Dr. C.) was attending the London hospitals in 1847, when the cholera in Russia began to give alarm to the profession in England. If a man pretended to write or speak on a serious subject, it was right to demand his qualifications. He knew something of Cholera personally. In the severe epidemic of 1849 in Brooklyn, he had the disease himself; and he was appointed by the City Council as Ward Physician to the worst district, including Furman street, along the docks, below the Brooklyn Heights and corresponding to the Lower Town of Quebec. He had seen it also in his attendance at the Brooklyn Hospital. In the cholera of 1854, in New York, he was Dispensary Physician to one of the worst districts near the Five Points—and lived next door to Dr. Vanderveer, physician to the Cholera Hospital. He (Dr. C.) had attended personally over one hundred cases of Asiatic cholera, and had seen as many more under the care of other physicians. He never desired to see it again. There were two points which most concerned the Board of Health, and which he would discuss in order:

#### PREVENTIVE MEASURES.

As most were aware, the first measure was a general cleansing. All offensive smells removed. Privies, piles of manure and chips, should be cleansed or removed, and treated freely with chloride of lime or common lime every few days. Fresh tan-bark and charcoal were also useful. He was sure that in Brompton typhoid fever or cholera might be often caused by damp, filthy cellars. Where a good drain could not be had, he recommended that an upright four inch tin pipe, with an umbrella top and a stove pipe valve—such as Mr. Peaker had made for himself—should extend from the cellar to the roof, to establish an upward current as well as side currents of air. Good, pure drinking water was very important. In England the opinion was prevailing that wells containing the soakings of privies and sewers were a very common cause of cholera. Brompton flats were overflowed every year. People who live on them should not drink, in cholera season, from such soakage wells. If not too expensive, he would recommend that some other improvements be suspended to save life, and that two or three public wells be sunk for pure water on the higher banks of the Etobicoke, for the use of the residents on the flats; say one on Queen Street East, above the post-office; one on Queen Street West, near the steam mill; and one near Main Street North, by Mr. Lundy's house.

Next came clothing. Extra flannels should be worn. It was a good plan to wear a flannel apron or belt over the bowels. The living should be comfortable, regular and temperate. Hard drinkers should reform beforehand. They were most likely of anybody to die with it. All sudden changes and shocks should be avoided. The greatest care should be observed in diet. A person might be sure to find plenty of Cholera around the cheap Dutch groceries in New York, where putrid vegetables were sold. Wilted cucumbers and decayed cabbages were worst; green corn

came next. A little ripe fruit, ripe potatoe, or stewed tomato well peppered, might be taken sparingly at dinner, but never at night during Cholera season. Rice was excellent in all forms. Fresh milk was very useful and so were toast and soft eggs. Good beef and mutton, or a little tender ham, were the best meats. Veal was very objectionable. The surest way to get Cholera was to get perfectly weary on a hot day, and then load the exhausted stomach late at night with a full meal; it was more than the poor mill with half steam could grind. Plenty of pure air was most important. The worst nests of cholera he ever saw were in a closed street, without a breath of air, called Hall's Alley, in Brooklyn which was entirely depopulated with cholera in 1849; and a court yard near the Five Points in New York, which was enclosed by high tenement houses on all sides, in 1854. All houses and streets should be well ventilated.

#### DOMESTIC TREATMENT.

In a full epidemic of Cholera, physicians were so occupied that much delay often occurred before patients could be seen. Members of the Board of Health would naturally be called on for temporary advice. Valuable lives might be saved by neighbors and friends if they only understand a few simple measures. First, the painless diarrhoea that generally precedes Cholera for a day or two, should never be neglected. The most important measure was to stop walking in the hot sun, and to lie down and cover up warmly in bed. Added to this, take a teaspoonful of paregoric, or fifteen drops of laudanum, with five or six drops each of the spirits of camphor and essence of peppermint, or tincture of capsicum in a wine glass of water—or, better still, weak brandy and water—and repeat in an hour or two if necessary, and the whole affair, if taken early enough, is commonly settled by a good warm nap in bed. A little boiled milk and flour, toast and tea, or a soft egg, or beef or mutton broth, may be used for diet for a few hours after. When free vomiting and purging occur, with copious frequent rice water stools; with terrible cramps in the legs; a dusky haggard face; sunken eyes; a husky voice; fearful thirst; feeble, thready pulse; cold, blue extremities; cold tongue; cool breath; with shrivelled washerwoman's fingers; we have actual Cholera. Not a moment should be lost. The patient should be placed in a warm, comfortable bed in a well aired room, with only the necessary friends and attendance on the room. An immense mustard-plaster covering the whole stomach and bowels should be applied from twenty minutes to an hour or so, till the skin is deeply reddened. A witty Irishman would sometimes claim that his stomach extended from his chin to his heels. In treating a Cholera patient, we should give him the benefit of an extensive stomach for mustard plaster. Bottles of hot water, well corked and wrapped in flannel, should be placed at the feet and along the thighs. Warm baths and moist heat relaxed the system, and were injurious. Dry heat only should be used in Cholera. Better even than bottles of hot water, were bags of hot bran or oats, baked in a stove oven, and laid about the limbs, and and repeatedly changed. The patient should be well rubbed by assistants but not more than one fourth of the time—till reaction. He remembered hearing the celebrated Dr. Marshall Hall, of London, in one of his lectures, tell of his poisoning two dogs alike with strychnia. One was teased and made to bark, and died. The other was left to sleep, and lived. Like the first dog, by constant rubbing and dosing, the poor patient with the poison of cholera in him was sometimes worried to death. Not

a moment should be lost in sending for a physician; every half-hour was precious. The patient should in the meantime be kept warm and lying down as much as possible. To save strength a bed-pan was most useful. For the terrible thirst, small pieces of ice, like lumps of sugar, laid by the attendant on the tongue of the patient were most refreshing and useful. It quieted the vomiting. A wine glass of water or better still, cold toast water, might be frequently taken; but if the stomach was filled the patient was sure to vomit. Rice water, good beef tea, or weak mutton broth, in moderate quantities, were best for nourishment. He would add a single prescription, modified from that of an eminent East India Surgeon. It might be kept in families or furnished by druggists to give in the early stage as a Cholera mixture, till a physician could arrive: Take of Laudanum, Spirits of Camphor, and Tincture of Capsicum, of each half an ounce; of Tincture of Catechu and Cinnamon water, of each ten drachms; mix. For an adult take a tea-spoonful every hour in a wine-glass of cold water, or cold toast water, till the vomiting and purging cease, or medical aid arrives. If the attack is very severe take a double dose the first or even second hour. Laudanum and other opiates, and even brandy, should not be given too recklessly in large doses in the last or blue stage of the Cholera, when the face was very dusky, and the pulse was nearly or quite gone at the wrist. They were then too stupifying. The above prescription was safe, and yet efficient. If the cramps were very severe, a valuable addition to the above mixture was two drachms of chloroform, with directions to shake the vial quickly in giving it. He had tried it with excellent effect in 1854. All this was simply to gain time to send for medical aid. No disease required more boldness, prudence, and skill. Warm brandy and water injections were highly praised. Half a tumbler of brandy, added to a tumbler of quite warm water, with a teaspoonful of laudanum, was thrown into the bowels and retained if possible. This was doubtless the best way to give brandy in the last stage of Cholera. Opium, Calomel, and all more powerful remedies, could only be safely trusted in the hands of a skilful physician."

#### DR. HAMLIN'S PAPER.

1st. On the approach of the Cholera, every family should be prepared to treat it without waiting for a physician. It does its work so expeditiously, that while you are waiting for the doctor it is done.

2nd. If you are prepared for it, it will not come. I think there is no disease which may be avoided with so much certainty as the cholera. But providential circumstances, or the thoughtless indiscretions of some member of a household may invite the attack, and the challenge will never be refused. It will probably be made in the night, your physician has been called in another direction, and you must treat the case yourself or it will be fatal.

3rd. *Causes of attack.* I have personally investigated at least a hundred cases, and not less than three-fourths could be traced directly to improper diet, or to intoxicating drinks, or to both united. Of the remainder, suppressed perspiration would comprise a large number. A strong, healthy, temperate, laboring man had a severe attack of Cholera, and after the danger was passed I was curious to ascertain the cause. He

had been cautious and prudent in his diet. He used nothing intoxicating. His residence was in a good locality. But after some hours of hard labour and very profuse perspiration, he had lain down to take his customary nap right against an open window, through which a very refreshing breeze was blowing. Another cause is drinking largely of cold water when hot and thirsty. Great fatigue, great anxiety, fright, fear, all figure among inciting causes. If one can avoid all these, he is as safe from the Cholera as from being swept away by a comet.

*4th. Symptoms of an attack.* While Cholera is prevalent in a place, almost every one experiences more or less disturbance of digestion. It is doubtless in part imaginary. Every one notices the slightest variation of feeling, and this gives an importance to mere trifles. There is often a slight nausea, or transient pains, or rumbling sounds, when no attack follows. No one is entirely free from these. But when diarrhoea commences though painless and slight, it is in reality the skirmishing party of the advancing column. It will have at first no single characteristic of Asiatic Cholera. But do not be deceived. It is the Cholera, nevertheless. Wait a little; give it time to get hold; say to yourself, "I feel perfectly well; it will soon pass off," and in a short time you will repent of your folly in vain. I have seen many a one commit suicide in this way.

Sometimes, though rarely, the attack commences with vomiting. But in whatever way it commences, it is sure to *hold on*. In a very few hours the patient may sink into the collapse. The hands and feet become cold and purplish; the countenance, at first nervous and anxious, becomes gloomy and apathetic, although a mental restlessness and raging thirst torment the sufferer while the powers of life are ebbing. The intellect remains clear, but all the social and moral feelings seem wonderfully to collapse with the physical powers. The patient knows he is to die, but he cares not a snap about it.

In some cases, though rarely, the diarrhoea continues for a day or two, and the foolish person keeps about, then suddenly sinks, sends for a physician, and, before he arrives, "dies as the fool dieth."

#### COURSE OF TREATMENT.

1st. For stopping the incipient diarrhoea: The mixture which I used in 1848 with great success, and again in 1855, has during this epidemic been used by thousands, and, although the attacks have been more sudden and violent, it has fully established its reputation for efficiency and perfect safety. It consists of equal parts by measure of, 1. Laudanum and Spirits of Camphor. 2. Tincture of Rhubarb, [Opil Tinctura 1 dr., Camphorae Tinct., 1 dr., Rhei. Tinct., 2 dr. Misc.] In an adult, 30 drops on a lump of sugar will often check the diarrhoea. But to prevent its return, one should always be taken to continue the medicine every four hours in diminishing doses, 25, 20, 15, 10, 9, when careful diet is all that will be needed.

In case the first does not stay the diarrhoea, continue to give in increasing doses 35, 40, 45, 60, at every movement of the bowels. Large doses will produce no injury while the diarrhoea lasts. When that is checked, then is the time for caution. I have never seen a case of diarrhoea taken in season that was not thus controlled, but some cases of advanced diarrhoea, and especially relapse, paid no heed to it whatever. As

soon as this becomes apparent I have always resorted to this course: Prepare a teacup of starch boiled as for use in starching linen, and stir into it a full teaspoonful of laudanum for an injection. Give one-third at each movement of the bowels. In one desperate case abandoned as hopeless by a physician, I could not stop the diarrhoea until the 7th injection, which contained nearly a teaspoonful of laudanum. The patient recovered and is in perfect health. At the same time I use prepared chalk in 10 grain doses, with a few drops of laudanum and camphor to each. But whatever course is pursued it must be followed up, and the diarrhoea controlled or the patient is lost.

2nd, Mustard Poultices. These should be applied to the pit of the stomach, and kept on till the surface is well reddened.

3rd, The patient, however well he may feel, should rigidly observe perfect rest. To lie quietly on the back is one-half the battle. In that position the enemy fires over you, but the minute you rise you are hit.

When the attack comes in the form of diarrhoea these directions will enable every one to meet it successfully.

4th, But when the attack is more violent, and there is vomiting, or vomiting and purging, perhaps also cramps and colic pains, the following mixture is far more effective and should always be resorted to. The missionaries Messrs. Long, Trowbridge and Washburn have used it in very many cases and with wonderful success. It consists of equal parts of Laudanum, Tincture of Capsicum, Tincture of Ginger, and Tincture of Cardamom Seeds. Dose, 30 to 50 drops, or half a teaspoonful in a little water, and to be increased according to the urgency of the case. In case the first dose should be ejected, the second, which should stand ready, should be given immediately after the spasm of vomiting has ceased. During this late cholera siege no one of us failed of controlling the vomiting, and also the purging by, at most, the third dose. We have, however, invariably made use of large mustard poultices of strong pure mustard, applied to the stomach, bowels, calves of the leg, feet, &c., at the case seemed to require.

#### COLLAPSE.

This is simply a more advanced stage of the disease. It indicates a gradual failing of all the powers of life. It is difficult to say when a case has become hopeless. At a certain point the body of the patient begins to emit a peculiar odor, which I call the *death odor*, for when that has become decided and unmistakable, I have never known the patient to recover. I have repeatedly worked on such cases for hours with no permanent result. But the blue color, the cold extremities, the deeply sunken eye, the vanishing pulse, are no signs that the case is hopeless. Scores of such cases in the recent epidemic have recovered. In addition to the second mixture, brandy, (a teaspoonful every half hour,) bottles of hot water surrounding the patient, especially the extremities, mustard plasters, and friction will often in an hour or two work wonders.

Thirst. In these and in all advanced cases, thirst creates great suffering. The sufferer craves water, and as sure as he gratifies the craving the worst symptoms

return, and he falls a victim to the transient gratification. The only safe way is to have a faithful friend or attendant, who will not heed his intreaties. The suffering may be, however, safely alleviated and rendered endurable. Frequent gurgling the throat and washing out the mouth will bring some relief. A spoonful of Gum Arabic water, or of camomile tea may frequently be given to wet the throat. 'Sydenham's White Decoction' may also be given both as a beverage and nourishment, in small quantities frequently. In a day or two the suffering from thirst will cease. In a large majority it has not been intense for more than twenty-four hours.

#### DIET.

Rice water, arrowroot, Sydenham's White Decoction, crust water, camomile tea, are the best articles for a day or two after the attack is controlled. Camomile is very valuable in restoring the tone of the stomach.

#### THE TYPHOID FEVER.

A typhoid state for a few days will follow all severe cases. There is nothing alarming in this. It has very rarely proved fatal. Patience and careful nursing will bring it all aright. The greatest danger is from drinking too freely. When the patient seemed to be sinking, a little brandy and water, or arrowroot and brandy, have revived him. In this terrible visitation of the cholera, we have considered ourselves perfectly armed and equipped, with a hand bag containing mixture No. 1, mixture No. 2, (for vomiting, &c.,) a few pounds of powdered mustard, a bottle of brandy, a paper of camomile flowers, and a paper of Gum Arabic.

I lay no claim to originality in recommending this course of treatment, and have adopted it from suggestions of able and experienced physicians. Having been the only doctor of many poor families living near me, I have tried various remedies recommended, but I have found none to be at all compared with the above. During the recent cholera I cannot find that any treatment has been so successful as this.

#### CONTAGION.

The idea of contagion should be abandoned. All the missionaries who have been with the most malignant cases day after day, are fully convinced of the non-contagiousness of the cholera. The incipient attacks which all have suffered from are to be attributed to great fatigue, making the constitution liable to an attack.



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OF

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